

**REMARKS**

In the Final Office Action, the Examiner rejected claims 1-29. By the present response, the Applicants cancel claims 30-39, amend claims 1, 21, and 28, and add new claims 40-48 for clarification of certain features to expedite allowance of the present application. These amendments do not add any new matter. Upon entry of these amendments, claims 1-19, 21-29 and 40-48 remain pending in the present application and are believed to be in condition for allowance. In view of the foregoing amendments and the following remarks, the Applicants respectfully request reconsideration and allowance of all pending claims.

**Election/Restriction**

In the Final Office Action, the Examiner withdrew claims 30-39 in view of a new restriction requirement. Although the Applicants do not agree with the Examiner's restriction requirement, the Applicants hereby cancel these claims to expedite allowance of the remaining claims.

**Rejections Under 35 U.S.C. § 101**

Claim 1-19 and 21-29 were rejected under 35 U.S.C. § 101. Applicants have amended independent claims 1, 21, and 28 to clarify certain aspects of the claimed subject matter. Although the Applicants do not agree with the Examiner's rejection, the Applicants hereby amend the claims to further clarify the useful, concrete, and tangible result. Therefore, the Applicants respectfully request withdrawal of the foregoing rejection.

**Rejections Under 35 U.S.C. § 102**

Claims 1-19 and 28 were rejected under 35 U.S.C. § 102(e) as being anticipated by Lystad et al. (U.S. Publication No. 2005/0192783, hereinafter "Lystad"). Applicants respectfully traverse this rejection.

***Legal Precedent***

First, the pending claims must be given an interpretation that is reasonable and consistent with the *specification*. See *In re Prater*, 415 F.2d 1393, 1404-05, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969) (emphasis added); see also *In re Morris*, 127 F.3d 1048, 1054-55, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); see also M.P.E.P. §§ 608.01(o) and 2111. Indeed, the specification is “the primary basis for construing the claims.” See *Phillips v. AWH Corp.*, No. 03-1269, -1286, at 13-16 (Fed. Cir. July 12, 2005) (*en banc*). One should rely *heavily* on the written description for guidance as to the meaning of the claims. See *id.*

Second, interpretation of the claims must also be consistent with the interpretation that *one of ordinary skill in the art* would reach. See *In re Cortright*, 165 F.3d 1353, 1359, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); M.P.E.P. § 2111. “The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation.” See *Collegenet, Inc. v. ApplyYourself, Inc.*, No. 04-1202, -1222, 1251, at 8-9 (Fed. Cir. August 2, 2005) (quoting *Phillips*, No. 03-1269, -1286, at 16). The Federal Circuit has made clear that derivation of a claim term must be based on “usage in the ordinary and accustomed meaning of the words amongst artisans of ordinary skill in the relevant art.” See *id.*

Third, anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Accordingly, the Applicants need only point to a single element not found in the cited

reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Fourth, if the Examiner relies on a theory of inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999) (Emphasis Added). The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. *Id.* In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The Examiner, in presenting the inherency argument, bears the evidentiary burden and must adequately satisfy this burden. *See id.* Regarding functional limitations, the Examiner must evaluate and consider the functional limitation, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. *See* M.P.E.P. § 2173.05(g); *In re Swinehart*, 169 U.S.P.Q. 226, 229 (C.C.P.A. 1971); *In re Schreiber*, 44 U.S.P.Q.2d 1429, 1432 (Fed. Cir. 1997). If the Examiner believes the functional limitation to be inherent in the cited reference, then the Examiner “must provide some evidence or scientific reasoning to establish the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art.” *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Inter. 1986).

***Features of Independent Claims 1 and 28 Omitted from Lystad***

Turning to the claims, the presently amended independent claims 1 and 28 recite, *inter alia*, “the material development modules comprise material design and testing modules configured to predict material characteristics resulting from one or more material design simulations.”

The cited reference does not teach or suggest “material development modules comprise material design and testing modules configured to predict material characteristics resulting from one or more material design simulations” as recited by independent claims 1 and 28. As indicated above, the specification is “the primary basis for construing the claims.” See *Phillips v. AWH Corp.*, No. 03-1269, -1286, at 13-16 (Fed. Cir. July 12, 2005) (*en banc*). One should rely *heavily* on the written description for guidance as to the meaning of the claims. See *id.* Although the Applicants do not intend or suggest that subject matter should be read into the claims, the Applicants stress that the present application provides context and meaning to the present claims. For example, as recited in paragraph [0018] of the present application:

Examples of materials modules 110 include software tools to perform the following functions:  $\gamma^1$  precipitation, grain size, phase analysis and grain growth modeling. Property modules 112 can include modules to perform functions such as flow stress, low cycle fatigue (LCF), ultimate tensile strength (UTS), creep and tensile modeling. Any cost and performance models 114 known in the art (e.g., COMPEAT from General Electric Company) can be utilized with an embodiment of the present invention.

Application, page 6, para [0018] (emphasis added).

In sharp contrast, the cited reference discloses:

One or more perimeter nodes 12a (not having any upstream nodes 12) may represent sources of materials such as raw materials, inventory, work-in-progress, purchase orders, or future procurements from vendors. One or more other perimeter nodes

12a (not having any downstream nodes 12) may represent customer orders for a product being manufactured.

Lystad et al., page 2, para [0018] (emphasis added).

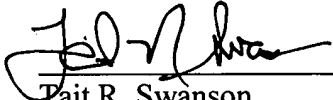
Clearly, Lystad does not teach or even suggest implementing material development modules as recited in the claims. In view of these deficiencies, among others, the cited reference cannot anticipate amended independent claims 1 and 28 and their dependent claims.

### **Conclusion**

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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